**AFRICA RISING MALAWI RESEARCH TEAM MEETING**

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**18 September, 2015, Lilongwe**

**AGENDA**

1. Global update
2. Updates from partners
3. Plans for the 2015/16 cropping season
   * Feedback meetings with communities
   * Securing new sites for expansion of activities where possible
4. Annual technical report for 2014/15
5. AOB

**Introduction**

Dr Chikowo briefed the members on the project upcoming events, including the important USAID commissioned review of the project that will take place during March 2016. This review will be part of what will inform a possible phase II of the project, and so it was important to implement activities to the best of our abilities. Early weather predictions for southern Africa are suggesting an El Nino weather, which is associated with below normal rainfall in much of southern Africa. The research team has to be ready to plant trials with the first effective rainfall and demonstrate meaningful intensification even under adverse conditions and close the yield gaps (see figure below). The brief introduction was followed by presentations from the different partners.



***Experiences to inform future research activities***

1. Data collection challenges where extension were given increased role in data collection: extension staff do not fully appreciate the need for accuracy and must not be assigned to collect data on their own as quality is often compromised
2. Plan to test effects of spatial arrangements in bean-maize intercrops as this has not been tested this year at larger scale (except for data from three mothers’ trials in Linthipe).
3. Having observed some interesting differences in yield for beans at different positions in topological sequence, team will explore the effects of the differences in position of the trial plots on topological sequences on yield for the varieties under study.
4. Experiences from last season’s early tailing off of rains: Planting climbing beans as an intercrop with maize, requires staggering bean planting by two weeks, to allow maize to grow and act as live stake. This meant that beans were two weeks behind, and the dry spell experienced from January 2015, coincided with the crop still in its early stages of development when moisture requirements were high, and this negatively affected the yield.
5. Team is planning to include training of farmers in making as well as use of compost manure in the coming year as one of the activities to improve productivity and soils health.

**LUANAR graduate student presentations**

**Soflet’s report on her thesis**

The research was on nutrition investigations in smallholder communities centered on the grain legume crops: cowpeas, pigeon peas, ground nuts and soybeans

**Some findings**

1. Farmers have no knowledge on legume processing –partial processing would enhance local consumption as the produce would then be stored in a format that cannot be easily marketed
2. Groups of farmers were trained on semi-processing of legumes and evaluation of was later done on individual households – did farmers learn effectively in groups?
3. Households make budget for maize and not legumes (farmers have limited knowledge on the amount of legumes to budget for per person/year.
4. Legumes are mainly grown for market purposes – households still sell even when their yields are not much
5. Pesticides are only used for cowpeas. Local pigeonpea varieties in Nsipe do not require pesticides to control pests which is a good attribute for adoption

**New graduate student: focus areas for investigation**

A new graduate student on the nutrition component (Haswell) has been engaged. Haswell will carry on with work initiated by Soflet and will:

1. Emphasize work on partial processing of grain legumes for increased local retention of grain legumes, and development of recipes (from the partially processed products).
2. Aspects of gender influence on storage and marketing.

**Edward Mzumara’s thesis report**

* Trials on pigeon peas and soybeans were conducted for two seasons, 2013/14 and 2014/15.
* Research involved treatments on sole cropping and inter cropping for both legumes

**Results**

1. Yield and BNF not affected by intercropping in soybeans plots
2. Phosphorus fertilization in soybeans plots induced more nitrogen fixation.
3. Pigeon peas was not affected by phosphorus fertilization
4. Intercropping is more beneficial than sole cropping.

**Decisions to inform future pathways**

* Intercropping is the best pattern to follow if soybeans is the main crop while sole cropping is best when pigeonpea is considered the main crop
* Planting patterns contributes to performance of pigeon peas

Other Planned activity

* Farmer feed back workshops to disseminate results of the research and get their feedback on the research as well.

**Charles Mkuche’s research**

* Experiments have been laid out in Kandeu, Golomoti and on station site at Bunda.
* The focus is on goat fattening using Gliricidia which is already existing in the communities and Faidherbia pods.
* Collection of pods has already commenced.
* Construction of goat pens for trials has also commenced.

Other activities planned for the research

1. Risk assessment sessions
2. Farmer feedback
3. Market training

**Immediate and action points for 2015/16 cropping season**

* Technical reports due – outline what has been significant over the past year. Annual technical report must have data
* Procurement of seed must ideally be completed by 15 October 2015. Seed distribution to have been completed by 31 October 2015
* All partners/researchers to spearhead collection of data and not to fully depend on extension officers,
* Early planting is needed this year as there are predictions of El Nino weather patterns this year. El Nino is associated with below normal rainfall in much of southern Africa
* Where possible, engage more baby farmers
* Encourage farmers to spray pigeonpea with pesticides to prevent destruction by pests.
* More emphasis on use of the early maturing pigeonpea variety (Nthawajuni) in the next season to avoid livestock damage

**Data uploading**

* We need to complete processing data for the 2014/15 season and have this send to IFPRI for uploading
* The PMMT reporting is now due.

**AOB**

* Next team meeting during first week of November 2015

**ATTENDANCE**

1. Dr Agnes Mwangwela LUANAR
2. Dr Fanny Chigwa LUANAR
3. Dr Regis Chikowo AR/MSU
4. Dr Wezi Mhango LUANAR
5. Mr Edward Mzumara LUANAR
6. Mr Gift Ndengu CIAT
7. Ms Soflet Mwafulirwa LUANAR
8. Mr Haswell Mulenga LUANAR
9. Ms Hannah Livuza Munthali AR/MSU